

Title (en)  
SECONDARY BATTERY

Title (de)  
SEKUNDÄRBATTERIE

Title (fr)  
ACCUMULATEUR

Publication  
**EP 3121873 A4 20171108 (EN)**

Application  
**EP 15765116 A 20150313**

Priority  
• JP 2014055154 A 20140318  
• JP 2015057427 W 20150313

Abstract (en)  
[origin: EP3121873A1] Provided is a secondary battery which is capable of more reliably cutting off current by increasing a deformation amount of a member, which is deformed by a rise of an internal pressure of a battery container and cuts off current. The secondary battery is provided with a current cut-off mechanism 50 in a current path between an external terminal 20A and an electrode 41 inside a battery container 10. The current cut-off mechanism 50 is accommodated in the battery container 10, and is provided with a diaphragm 5 connected to the external terminal 20A and a current collector 30A connected to the electrode 41. The diaphragm 5 is disposed on an outer side of the battery container 10 than the current collector 30A and has a convex shape toward an inside of the battery container 10. The current collector 30A includes a concave portion 33b on a surface facing the outer side of the battery container 10, and the diaphragm 5 is bonded to the concave portion 33b.

IPC 8 full level  
**H01M 50/176** (2021.01); **H01M 50/55** (2021.01); **H01M 50/553** (2021.01); **H01M 50/562** (2021.01)

CPC (source: EP US)  
**H01M 10/0431** (2013.01 - US); **H01M 50/176** (2021.01 - EP US); **H01M 50/55** (2021.01 - EP US); **H01M 50/553** (2021.01 - EP US); **H01M 50/562** (2021.01 - EP US); **H01M 50/578** (2021.01 - US); **H01M 50/581** (2021.01 - EP US); **H01M 2200/20** (2013.01 - US); **Y02E 60/10** (2013.01 - EP); **Y02P 70/50** (2015.11 - EP)

Citation (search report)  
• [E] EP 2924761 A1 20150930 - HITACHI AUTOMOTIVE SYSTEMS LTD [JP]  
• [E] EP 3089239 A1 20161102 - HITACHI AUTOMOTIVE SYSTEMS LTD [JP]  
• [X] JP 2013161712 A 20130819 - TOYOTA MOTOR CORP  
• See references of WO 2015141570A1

Cited by  
EP3544078A1; US10998534B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3121873 A1 20170125; EP 3121873 A4 20171108; EP 3121873 B1 20210512**; CN 106104857 A 20161109; CN 106104857 B 20201106; JP 6192807 B2 20170906; JP WO2015141570 A1 20170406; US 11303002 B2 20220412; US 2017018758 A1 20170119; WO 2015141570 A1 20150924

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**EP 15765116 A 20150313**; CN 201580013508 A 20150313; JP 2015057427 W 20150313; JP 2016508690 A 20150313; US 201515120589 A 20150313